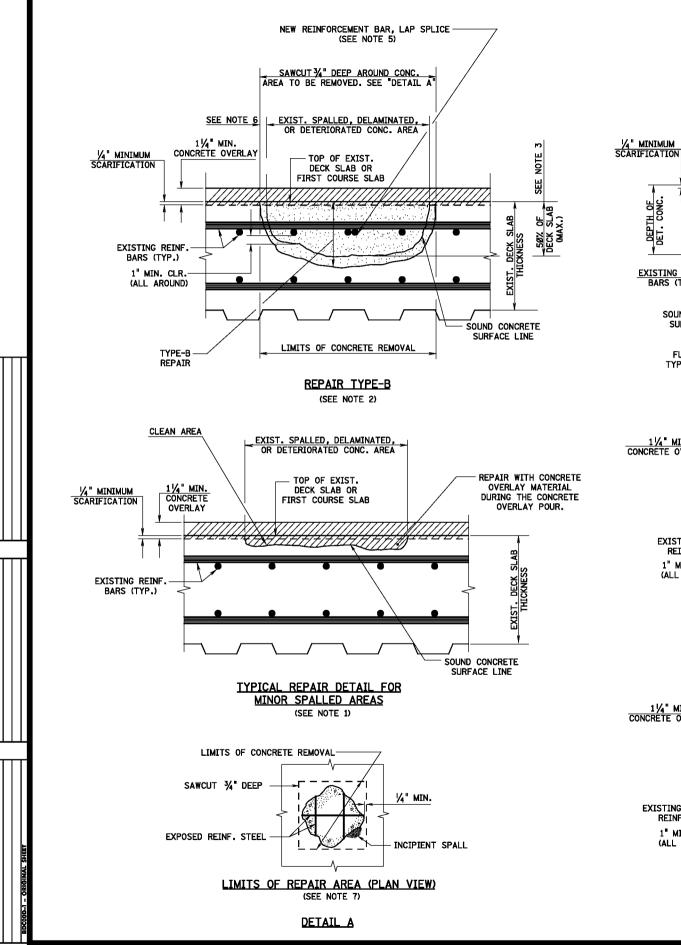
TABLE OF CONTENTS - SHEET 1

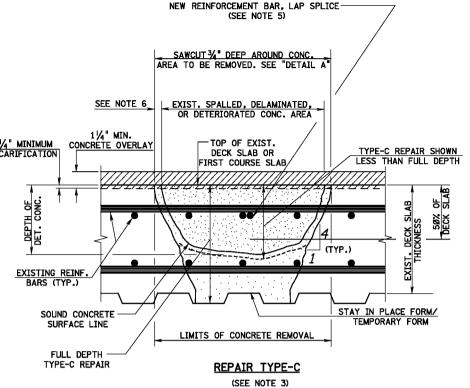
SHEET #	DESCRIPTION	SHEET #		DESCRIPTION	SHEET #		DESCRIPTION	
1	COVER SHEET	43	CD-612-1	BEAM GUIDE RAIL	87	CD-619-14	NON-BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIG	
2	TABLE OF CONTENTS - SHEET 1	44	CD-612-2	BEAM GUIDE RAIL, DUAL-FACED	88	CD-619-15	NON-BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIG	
3	TABLE OF CONTENTS - SHEET 2	45	CD-612-3	RUB RAIL	89	CD-620-1	DELINEATORS	
		46	CD-612-4	BEAM GUIDE RAIL ANCHORAGES	90	CD-809-1	TOPSOIL STABILIZATION	
	ROADWAY CONSTRUCTION DETAILS	47	CD-612-5	SLOTTED GUIDE RAIL TERMINALS AND EXTRUDER TERMINALS	91	CD-813-1	PLANTING	
4	INDEX FOR STANDARD ROADWAY CONSTRUCTION DETAILS (Index Sheet 1)	48	CD-612-6	CONTROLLED RELEASE TERMINALS	92	CD-814-1	NONVEGETATIVE SURFACE DETAILS	
5	INDEX FOR STANDARD ROADWAY CONSTRUCTION DETAILS (Index Sheet 2)	49	CD-612-7	MEDIAN GUIDE RAIL TREATMENT				
6	INDEX FOR STANDARD ROADWAY CONSTRUCTION DETAILS (Index Sheet 3)	50	CD-612-8	BEAM GUIDE RAIL END TREATMENT				
7	CD-107-1 NOISE CONTROL	51	CD-612-9	BEAM GUIDE RAIL ATTACHMENTS			TRAFFIC CONTROL DETAILS	
8	CD-202-1 CONCRETE JOINT REMOVAL, MILLING AND RUMBLE STRIPS	52	CD-612-10	BEAM GUIDE RAIL ATTACHMENTS	93	INDEX SHEET FOR STANDARD TRAFFIC CONTROL DETAILS		
9	CD-203-1 POROUS FILL AND EMBANKMENT	53	CD-612-11	BEAM GUIDE RAIL ATTACHMENTS	94	TCD-1 LEGEND & GENERAL NOTES		
10	CD-212-1 TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES	54	CD-612-12	THRIE BEAM AND W BEAM TERMINAL CONNECTOR	95	TCD-2	SIGHT DIST., TAPER LENGTH, ESCAPE RAMP, CONST. BARRIER DETAIL	
11	CD-212-2 TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES	55	CD-612-13	BEAM GUIDE RAIL ATTACHMENTS	96	TCD-3	2 LANES, UNDIVIDED, LANE & SHOULDER CLOSING	
12	CD-212-3 TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES	56	CD-612-14	BEAM GUIDE RAIL ATTACHMENTS	97	TCD_4	2 LANES, UNDIVIDED, LANE & SHOULDER CLOSING WFLAGGING	
13	CD-306-1 CONTRACTION JOINTS IN CONCRETE BASE COURSE	57	CD-612-15	BEAM GUIDE RAIL ATTACHMENTS	98	TCD-5	2 LANES, UNDIVIDED, INTERSECTION	
14	CD-405-1 CONCRETE SURFACE COURSE	58	CD-612-16	BEAM GUIDE RAIL ATTACHMENTS	99	TCD-6	2 LANES, UNDIVIDED, INTERSECTION	
15	CD-405-2 CONCRETE SURFACE COURSE JOINT DETAILS	59	CD-614-1	CHAIN-LINK FENCE	100	TCD-7	2 LANES, UNDIVIDED, INTERSECTION	
16	CD-405-3 CONCRETE SURFACE COURSE JOINT DETAILS	60	CD-614-2	CHAIN-LINK AND SNOW FENCE	101	TCD-8	4 LANES, UNDIVIDED, RIGHT LANE & SHOULDER CLOSING	
17	CD-405-4 TIE BOLTS AND TIE BARS	61	CD-616-1	SLOPE AND CHANNEL PROTECTION	102	TCD-9	4 LANES, UNDIVIDED, LEFT LANE & SHOULDER CLOSING	
18	CD-405-5 TRANSVERSE EXPANSION JOINT TYPE A	62	CD-617-1	TRAFFIC CONTROL DEVICES	103	TCD-10	4 LANES, UNDIVIDED, 2 LANES & SHLD. ONE DIRECTION CLOSING	
19	CD-405-6 BRIDGE APPROACH SLABS AND TRANSITION SLABS ADJOINING	63	CD-617-2	TRAFFIC CONTROL DEVICES AND DETAILS	104	TCD-11	4 LANES, UNDIVIDED, INTERSECTION	
20	CD-405-7 BRIDGE APPROACH SLABS AND TRANSITION SLABS ADJOINING	64	CD-617-3	PRECAST CONCRETE CURB, CONSTRUCTION BARRIER, TYPE 1	105	TCD-12	4 LANES, UNDIVIDED, INTERSECTION	
21	CD-601-1 UNDERDRAINS	65	CD-617-4	PRECAST CONCRETE CURB, CONSTRUCTION BARRIER TYPE 4, (ALT. A)	106	TCD-13	4 LANES, UNDIVIDED, INTERSECTION	
22	CD-602-1 PIPE END SECTIONS	66	CD-617-5	PRECAST CONCRETE CURB, CONSTRUCTION BARRIER TYPE 4, (ALT. B)	107	TCD-14	4 & 6 LANES, DIVIDED, RIGHT LANE & SHOULDER CLOSING	
23	CD-602-2 CROSS DRAIN TRENCH CONSTRUCTION	67	CD-617-6	CONSTRUCTION SIGNS	108	TCD-15	4 & 6 LANES, DIVIDED, LEFT LANE CLOSING	
24	CD-603-1 INLET GENERAL DETAILS	68	CD-617-7	CONSTRUCTION SIGNS	109	TCD-16	6 LANES, DIVIDED, (LEFT & RIGHT) TWO LANE CLOSING	
25	CD-603-2 INLETS, TYPE A, B & C	69	CD-617-8	CONSTRUCTION IDENTIFICATION SIGN	110	TCD-17	6 LANES, DIVIDED, CENTER LANE CLOSURE	
26	CD-603-3 INLETS, TYPE B1, B2, & B, B1 & B2 MODIFIED	70	CD-617-9	CONSTRUCTION IDENTIFICATION SIGNS	111	TCD-18	DIVIDED, EXIT RAMP CONSTRUCTION (LEFT & RIGHT)	
27	CD-603-4 INLETS, TYPE E, E1, E2, & ES	71	CD-618-1	PLOWABLE PAVEMENT REFLECTOR LOCATION DETAILS	112	TCD-19	DIVIDED, EXIT RAMP CONSTRUCTION (LEFT & RIGHT) W/DECEL LAN	
28	CD-603-5 INLETS, TYPE D1 & D2	72	CD-618-2	PLOWABLE PAVEMENT REFLECTOR LOCATION DETAILS	113	TCD-20	DIVIDED, ENTRANCE RAMP CONSTRUCTION (LEFT & RIGHT)	
29	CD-603-6 CAST IRON EXTENSION FRAMES FOR EXISTING INLETS	73	CD-618-3	PLOWABLE PAVEMENT REFLECTOR LOCATION DETAILS	114	TCD-21	DIVIDED, ENTRANCE RAMP CONSTRUCTION (LEFT & RIGHT) WACCE	
30	CD-603-7 CAST IRON EXTENSION RINGS FOR EXISTING MANHOLES	74	CD-619-1	SIGNS	115	TCD-22	MULTI-LANE ROAD MOVING OPERATION	
31	CD-603-8 MANHOLES	75	CD-619-2	SIGNS				
32	CD-603-9 PRECAST MANHOLES	76	CD-619-3	SIGNS				
33	CD-604-1 CONCRETE SLOPE GUTTERS	77	CD-619-4	STEEL U-POST SIGN SUPPORTS				
34	CD-605-1 CONCRETE AND GRANITE CURB	78	CD-619-5	STEEL U-POST SIGN SUPPORTS				
35	CD-605-2 BARRIER CURB AND VERTICAL CURB DETAILS	79	CD-619-6	STEEL U-POST SIGN SUPPORTS				
36	CD-605-3 BARRIER CURB	80	CD-619-7	BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS				
37	CD-607-1 PUBLIC SIDEWALK AND CURB RAMPS	81	CD-619-8	BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS				
38	CD-607-2 DRIVEWAYS	82	CD-619-9	BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS				
39	CD-608-1 CONCRETE AND HMA ISLANDS	83	CD-619-10	BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS				
40	CD-610-1 CONCRETE HEADWALLS AND APRONS	84	CD-619-11	BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS				
41	CD-610-2 CONCRETE CULVERTS	85	CD-619-12	BREAKAWAY SIGN SUPPORTS FOR GROUND MOUNTED SIGNS		ABBRE	SVIATIONE	
						ARRKE	<u>EVIATIONS</u>	

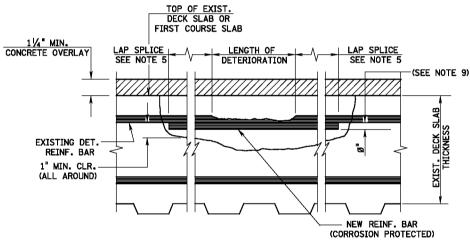
CD = ROADWAY CONSTRUCTION DETAILS
TCD = TRAFFIC CONTROL DETAILS
BCD = BRIDGE CONSTRUCTION DETAILS

INDEX FOR STANDARD BRIDGE CONSTRUCTION DETAILS

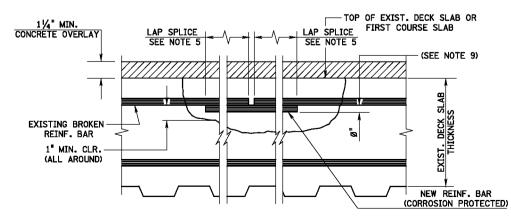
DESCRIPTION	BCD	DESCRIPTION	BCD	DESCRIPTION	BCD
BRIDGE DECK REHABILITATION WITH CONCRETE OVERLAY	1A				
BRIDGE DECK REHABILITATION WITHOUT CONCRETE OVERLAY	18				
BRIDGE DECK REHABILITATION, DECK JOINT REPAIR (SHEET 1 OF 2)	1C				
BRIDGE DECK REHABILITATION, DECK JOINT REPAIR (SHEET 2 OF 2)	1D				
STRIP SEAL DECK JOINTS	2				
2'-8", 2'-10", AND 6'-6" PARAPETS	3				
BRIDGE MEDIAN BARRIER	4				
SAWCUT GROOVING FOR BRIDGE DECKS	5				
CONCRETE CLASSES AND PAY ITEMS	6				
MISCELLANEOUS BRIDGE ITEMS	7				
BRIDGE CHAIN LINK FENCE (CURVED TOP)	8A				
BRIDGE CHAIN LINK FENCE (6'-3" HIGH)	8B				
STAY-IN-PLACE FORMS	9				







DETERIORATED REINFORCEMENT BAR REPAIR



BROKEN REINFORCEMENT BAR REPAIR

GENERAL NOTES:

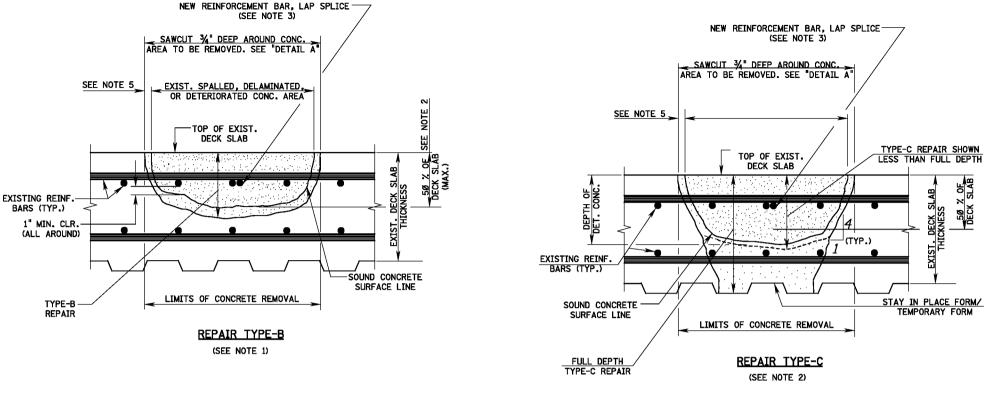
- SPALLED, DELAMINATED, AND DETERIORATED CONCRETE AREAS SHALL BE CLEANED AND REPAIRED WITH THE CONCRETE OVERLAY TYPE THAT IS TO BE USED FOR THE OVERLAY PLACEMENT, OR CLASS A CONCRETE MAY BE USED. REFER TO NJDOT SPECIFICATIONS SECTION 518.
- 2. REPAIR TYPE-B:
 ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE
 REMOVED TO A MINIMUM DEPTH OF 1" BELOW THE BOTTOM OF
 THE TOP LAYER OF EXISTING REINFORCEMENT STEEL TO A
 MAXIMUM OF 50 % OF THE THICKNESS OF THE EXISTING
 CONCRETE DECK.
- 3. REPAIR TYPE-C:
 ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE
 REMOVED, AND IF THE SOUND CONCRETE SURFACE IS LOCATED
 AT A DEPTH GREATER THAN 50 % OF THE DECK THICKNESS
 WHEN MEASURED FROM THE TOP OF THE DECK, PERFORM
 TYPE-C REPAIR UPON APPROVAL OF THE ENGINEER, AS SHOWN
 IN THE DETAIL "REPAIR TYPE-C". IF THE BOTTOM MAT OF THE
 DECK REINFORCEMENT STEEL IS EXPOSED, THE DECK SLAB
 SHALL BE REPLACED TO FULL DEPTH IN THIS AREA OF EXPOSURE.
- 4. THE TOP SURFACE OF THE CONCRETE FOR TYPE-B AND TYPE-C REPAIRS SHALL BE EVEN WITH THE ADJACENT TOP OF EXISTING DECK SLAB AND SHALL MAINTAIN THE EXISTING GRADES AND CROSS SLOPES.
- 5. A NEW CORROSION PROTECTED REINFORCEMENT BAR SHALL BE PLACED TO SUPPLEMENT AN EXISTING REINFORCEMENT BAR WHEN AN EXISTING BAR HAS A SECTION LOSS OF 25 % OR MORE OF THE ORIGINAL CROSS SECTION, AS DETERMINED BY THE ENGINEER, OR THE EXISTING REINFORCEMENT BAR IS BROKEN. THE NEW BAR SHALL EXTEND 3Ø BAR DIAMETERS IN EACH DIRECTION FROM WHERE THE SECTION LOSS OR BREAK ENDS. MODIFY THE LIMITS OF THE REPAIR AREA TO MEET THE REINFORCEMENT SPLICE LAP REQUIREMENTS.
- 6. FOR REPAIR TYPE-B AND TYPE-C SOUND CONCRETE SHALL BE REMOVED TO A DEPTH OF 1/4" MINIMUM TO 1" MAXIMUM IN ALL DIRECTIONS, EXCEPT THAT THE MAXIMUM LIMIT MAY BE MODIFIED UPON APPROVAL OF THE ENGINEER.
- 7. UPON APPROVAL OF THE ENGINEER, MODIFY THE LIMITS OF CONCRETE REMOVAL AS SHOWN IN THE "LIMITS OF REPAIR AREA (PLAN VIEW)" WHEN SUPPLEMENTARY REINFORCEMENT BARS ARE REQUIRED.
- 8. DECK REINFORCEMENT BAR DETAILS SHOWN ARE GENERAL. ACTUAL REINFORCEMENT BAR SPACINGS AND LOCATIONS WILL VARY FROM BRIDGE TO BRIDGE.
- THE NEW REINFORCEMENT BAR SHALL BE PLACED AT THE SAME LEVEL ALONGSIDE THE EXISTING DETERIORATED OR BROKEN REINFORCEMENT BAR.
- 10. BEFORE PLACEMENT OF THE OVERLAY, ALL PREVIOUSLY PATCHED AREAS SHALL BE COMPLETELY REMOVED.

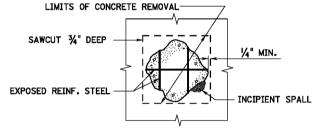
BCD-1A

NEW JERSEY DEPARTMENT OF TRANSPORTATION

BRIDGE CONSTRUCTION DETAILS
BRIDGE DECK REHABILITATION
WITH CONCRETE OVERLAY

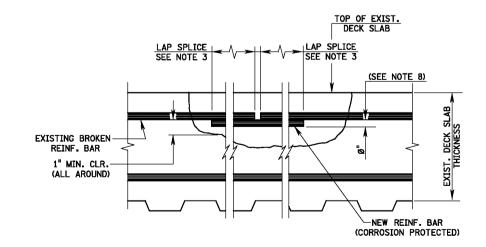




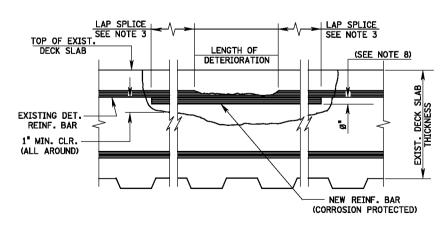


LIMITS OF REPAIR AREA (PLAN VIEW)
(SEE NOTE 6)

DETAIL A



BROKEN REINFORCEMENT BAR REPAIR



DETERIORATED REINFORCEMENT BAR REPAIR

GENERAL NOTES

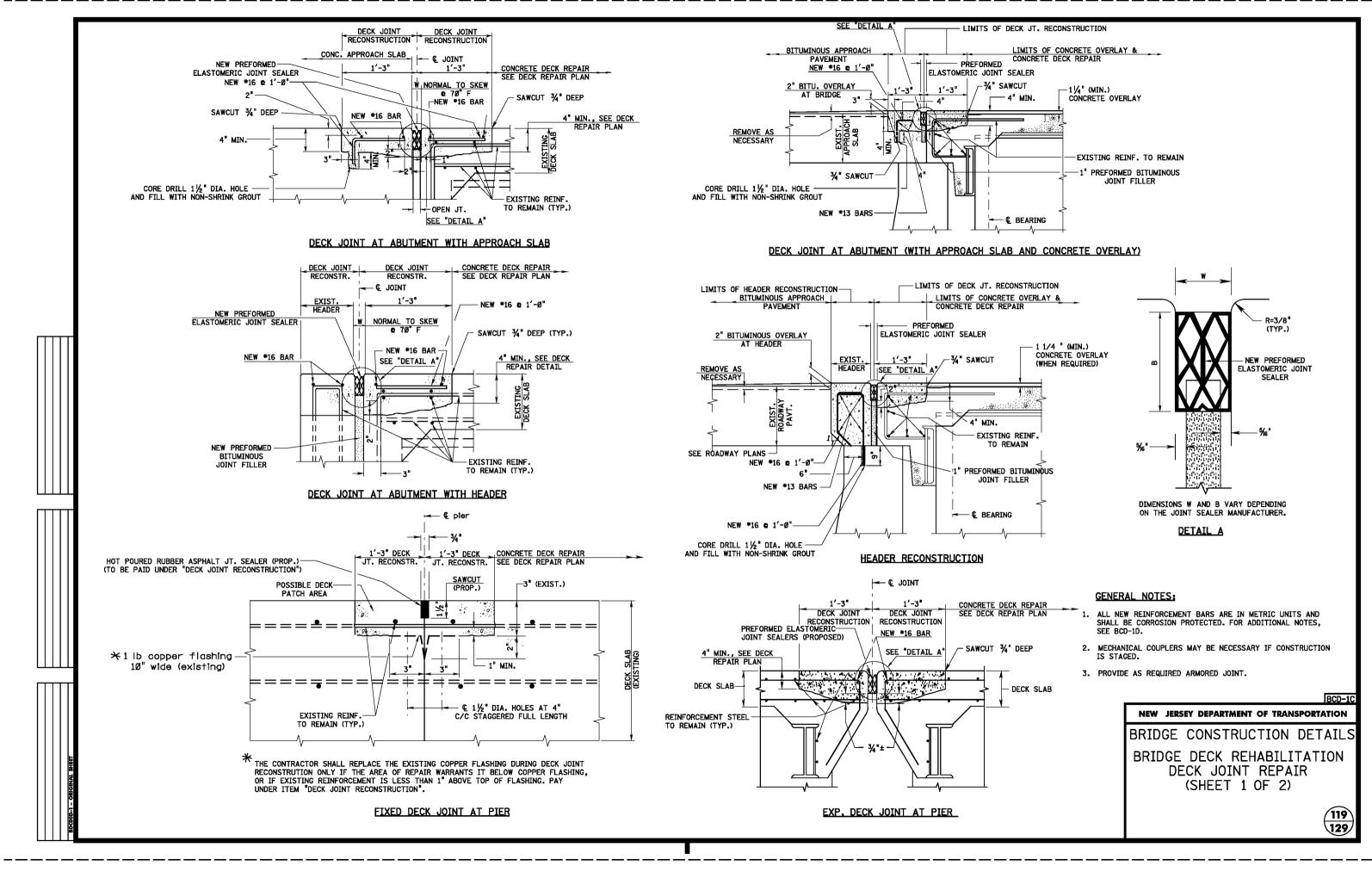
- 1. REPAIR TYPE-B:
 ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE
 REMOVED TO A MINIMUM DEPTH OF 1" BELOW THE BOTTOM OF
 THE TOP LAYER OF EXISTING REINFORCEMENT STEEL OR UP TO A
 MAXIMUM OF 50 % OF THE THICKNESS OF THE EXISTING
 CONCRETE DECK.
- 2. REPAIR TYPE-C:
 ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE
 REMOVED. IF THE SOUND CONCRETE SURFACE IS LOCATED
 AT A DEPTH GREATER THAN 50 % OF THE DECK THICKNESS
 WHEN MEASURED FROM THE TOP OF THE DECK, PERFORM
 TYPE-C REPAIR UPON APPROVAL OF THE ENGINEER, AS SHOWN
 IN THE DETAIL "REPAIR TYPE-C". IF THE BOTTOM MAT OF THE
 DECK REINFORCEMENT STEEL IS EXPOSED, THE DECK SLAB
 SHALL BE REPLACED TO FULL DEPTH IN THIS AREA OF EXPOSURE.
- 3. A NEW CORROSION PROTECTED REINFORCEMENT BAR SHALL BE PLACED TO SUPPLEMENT AN EXISTING REINFORCEMENT BAR WHEN AN EXISTING BAR HAS A SECTION LOSS OF 25 % OR MORE OF THE ORIGINAL CROSS SECTION, AS DETERMINED BY THE ENGINEER, OR THE EXISTING REINFORCEMENT BAR IS BROKEN. THE NEW BAR SHALL EXTEND 3Ø BAR DIAMETERS IN EACH DIRECTION FROM WHERE THE SECTION LOSS OR BREAK ENDS. MODIFY THE LIMITS OF THE REPAIR AREA TO MEET THE REINFORCEMENT SPLICE LAP REQUIREMENTS.
- 4. THE TOP SURFACE OF THE CONCRETE FOR TYPE-B AND TYPE-C REPAIRS SHALL BE EVEN WITH THE ADJACENT TOP OF EXISTING DECK SLAB AND SHALL MAINTAIN THE EXISTING GRADES AND CROSS SLOPES.
- 5. FOR REPAIR TYPE-B AND TYPE-C SOUND CONCRETE SHALL BE REMOVED TO A DEPTH OF 1/4" MINIMUM TO 1" MAXIMUM IN ALL DIRECTIONS, EXCEPT THAT THE MAXIMUM LIMIT MAY BE MODIFIED UPON APPROVAL OF THE ENGINEER.
- 6. UPON APPROVAL OF THE ENGINEER, MODIFY THE LIMITS OF CONCRETE REMOVAL AS SHOWN IN THE "LIMITS OF REPAIR AREA (PLAN VIEW)" WHEN SUPPLEMENTARY REINFORCEMENT BARS ARE REQUIRED.
- DECK REINFORCEMENT BAR DETAILS SHOWN ARE GENERAL. ACTUAL REINFORCEMENT BAR SPACINGS AND LOCATIONS WILL VARY FROM BRIDGE TO BRIDGE.
- 8. THE NEW REINFORCEMENT BAR SHALL BE PLACED AT THE SAME LEVEL ALONGSIDE THE EXISTING DETERIORATED OR BROKEN REINFORCEMENT BAR.
- 9. REFER TO THE NJDOT SPECIFICATIONS SECTION 518 FOR GUIDANCE AS TO THE SELECTION OF A QUICK-SETTING PATCH MATERIAL PRODUCT.

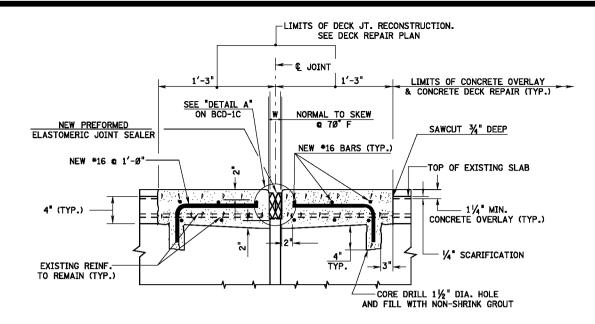
BCD-1B

NEW JERSEY DEPARTMENT OF TRANSPORTATION

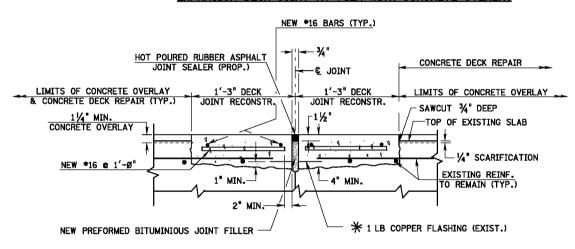
BRIDGE CONSTRUCTION DETAILS
BRIDGE DECK REHABILITATION
WITHOUT CONCRETE OVERLAY







EXPANSION DECK JOINT AT PIER WITH CONCRETE OVERLAY



GENARAL NOTES:

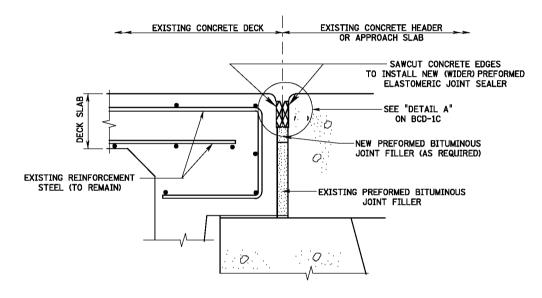
- 1. ALL NEW REINFORCEMENT BARS ARE IN METRIC UNITS AND SHALL BE CORROSION PROTECTED.
- "DECK JOINT RECONSTRUCTION" AND "HEADER RECONSTRUCTION" SHALL INCLUDE:

 - A. 3/ SAWCUT AS SHOWN IN JOINT DETAILS.

 B. REMOVE CONCRETE AND DISPOSE OF MATERIALS TO LIMITS SHOWN AND REPLACE WITH CONCRETE.

 C. REMOVE PREFORMED BITUMINOUS JOINT FILLER (IF ANY) TO DEPTH SHOWN OR AS DIRECTED BY
 - THE ENGINEER.
 - BLOCKING FOR PROPOSED PREFORMED ELASTOMERIC JOINT SEALER. REPLACEMENT OF CORROSION PROTECTED REINFORCING BARS.

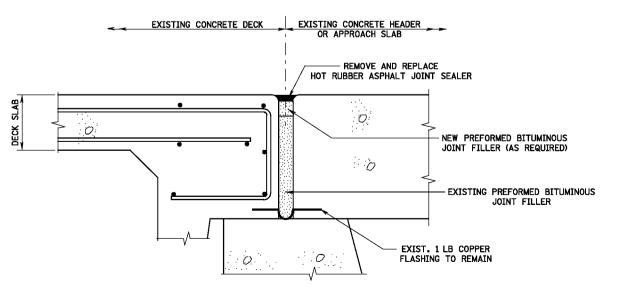
 - PROPOSED PREFORMED BITUMINOUS JOINT FILLER WHERE REQUIRED.
 - DRILL AND FILL HOLES WITH NON-SHRINK GROUT.
- SAWCUTTING THE CURB AND SIDEWALK TO INSTALL THE SEALER.
- 3. EPOXY BONDING COMPOUND SHALL BE USED BETWEEN NEW AND EXISTING CONCRETE. REFER TO NJDOT SPECIFICATION SECTION 518.
- 4. PROVIDE AS REQUIRED ARMORED JOINT.



SAWCUT JOINT RECONSTRUCTION AT ABUTMENT

THE CONTRACTOR SHALL REPLACE THE EXISTING COPPER FLASHING DURING DECK JOINT RECONSTRUCTION ONLY IF THE CONCRETE BELOW COPPER FLASHING IS DETERIORATED OR IF EXISTING REINFORCEMENT IS LESS THAN 1 ABOVE TOP OF FLASHING. PAY UNDER ITEM "DECK JOINT RECONSTRUCTION".

FIXED JOINT AT PIER WITH CONRETE OVERLAY.



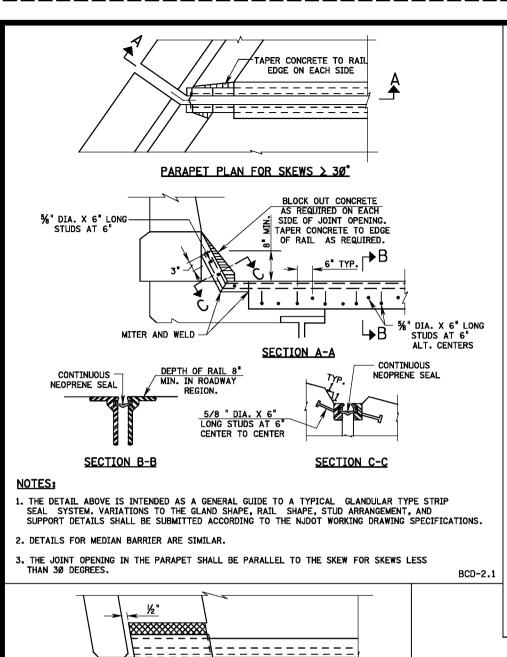
DECK JOINT RE-SEAL AT ABUTMENT

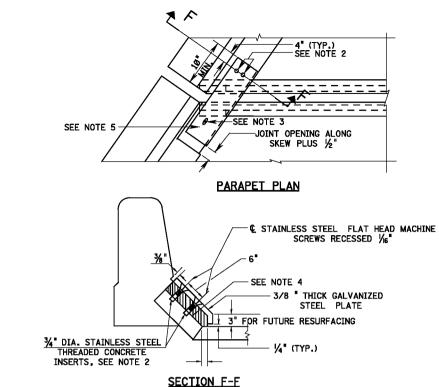
NEW JERSEY DEPARTMENT OF TRANSPORTATION BRIDGE CONSTRUCTION DETAILS

BRIDGE DECK REHABILITATION DECK JOINT REPAIR (SHEET 2 OF 2)



BCD-1D

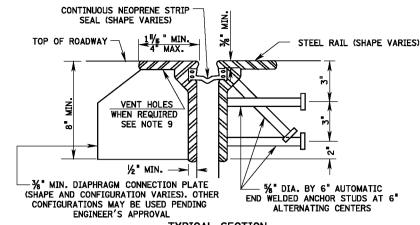




NOTES:

- 1. THE DETAIL ABOVE IS INTENDED AS A GENERAL GUIDE TO A TYPICAL GLANDULAR TYPE STRIP SEAL SYSTEM. VARIATIONS TO THE GLAND SHAPE, RAIL SHAPE, STUD ARRANGEMENT, AND SUPPORT DETAILS SHALL BE SUBMITTED ACCORDING TO THE NJDOT WORKING DRAWING SPECIFICATIONS.
- 2. 2 34" DIA. X 11/2" STAINLESS STEEL FLAT HEAD MACHINE SCREWS WITH 2 34" DIA. CAST-IN-PLACE STAINLESS STEEL THREADED CONCRETE INSERTS. RECESS 1/16" BELOW PLATE SURFACE
- 3. 1" X 5" SLOTTED HOLE FOR SKEWS TO 45°; 1" X 6" SLOTTED HOLE FOR SKEWS OVER 45°. HOLE SLOTTED PARALLEL TO DIRECTION OF MOVEMENT WITH 1 $\frac{3}{4}$ " X 1 $\frac{1}{2}$ " STAINLESS STEEL FLAT HEAD MACHINE SCREW RECESSED $\frac{1}{6}$ " BELOW PLATE SURFACE IN $\frac{3}{4}$ " CAST-IN-PLACE STAINLESS STEEL THREADED CONCRETE INSERT. DO NOT OVER TIGHTEN MACHINE SCREWS.
- 4. BLOCK OUT CONCRETE AS REQUIRED ABOVE JOINT OPENING.
- 5. $\frac{1}{2}$ " THICK BY 1'-2" WIDE X (2'-0" LONG FOR SKEWS TO 45° AND 3'-0" LONG FOR SKEWS LARGER THAN 45°) GRADE 36 GALVANIZED STEEL PLATE BENT WITH HOLES AS SHOWN.

BCD-2.2

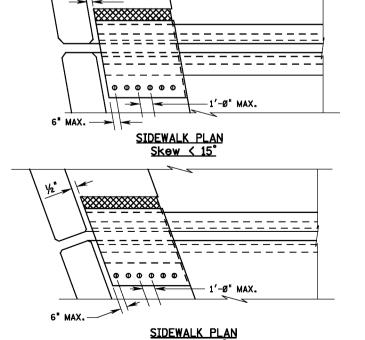


TYPICAL SECTION

NOTES:

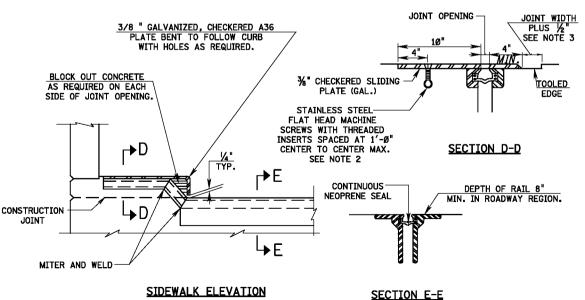
- THE DETAIL ABOVE IS INTENDED AS A GENERAL GUIDE TO A TYPICAL GLANDULAR TYPE STRIP SEAL SYSTEM. VARIATIONS TO THE GLAND SHAPE, RAIL SHAPE, STUD ARRANGEMENT, AND SUPPORT DETAILS SHALL BE SUBMITTED ACCORDING TO THE NJDOT WORKING DRAWING SPECIFICATIONS.
- 2. STEEL RAILS SHALL CONFORM TO AASHTO M270, GRADE 36.
- AUTOMATIC END WELDED STUDS SHALL CONFORM TO AASHTO M169 (ASTM A108), GRADES 1015, 1018 OR 1020.
- 4. PLATES, SHAPES AND OTHER STRUCTURAL STEEL MATERIAL USED IN THE DECK JOINTSYSTEM WITH THE STEEL RAILS SHALL CONFORM TO AASHTO M183.
- ALL STRUCTURAL STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION PER AASHTO M111.
- FIELD SPLICES FOR STEEL RAILS SHALL BE PLACED AT GRADE BREAKS AND LONGITUDINAL BREAKS IN THE DECK.
- 7. NEOPRENE STRIP SEAL SHALL BE INSTALLED IN A CONTINUOUS LENGTH OVER THE ENTIRE WIDTH OF THE SUPERSTRUCTURE WITH NO FIELD SPLICES PERMITTED. AN APPROVED LUBRICANT/ADHESIVE FOR THE INSTALLATION AND PERMANENT BONDING TO THE STEEL RAIL SHALL BE PLACED PRIOR TO THE STRIP SEAL INSTALLATION.
- 8. WHERE A LONGITUDINAL AND TRANSVERSE JOINT INTERSECT, THE JOINT SUBJECTED TO THE GREATER MOVEMENT SHALL BE MADE CONTINUOUS AND THE OTHER SEAL SHALL BUTT UP AGAINST IT. ALL JOINT INTERSECTIONS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
- 9. %" DIA. VENT HOLES SPACED BETWEEN STUDS AT 1'-0" CENTER TO CENTER MAX. ARE REQUIRED WHEN TOP OF STEEL RAIL IS WIDER THAN 3".

BCD-2.3



Skew > 15°

BCD-2.4



BCD-2.5

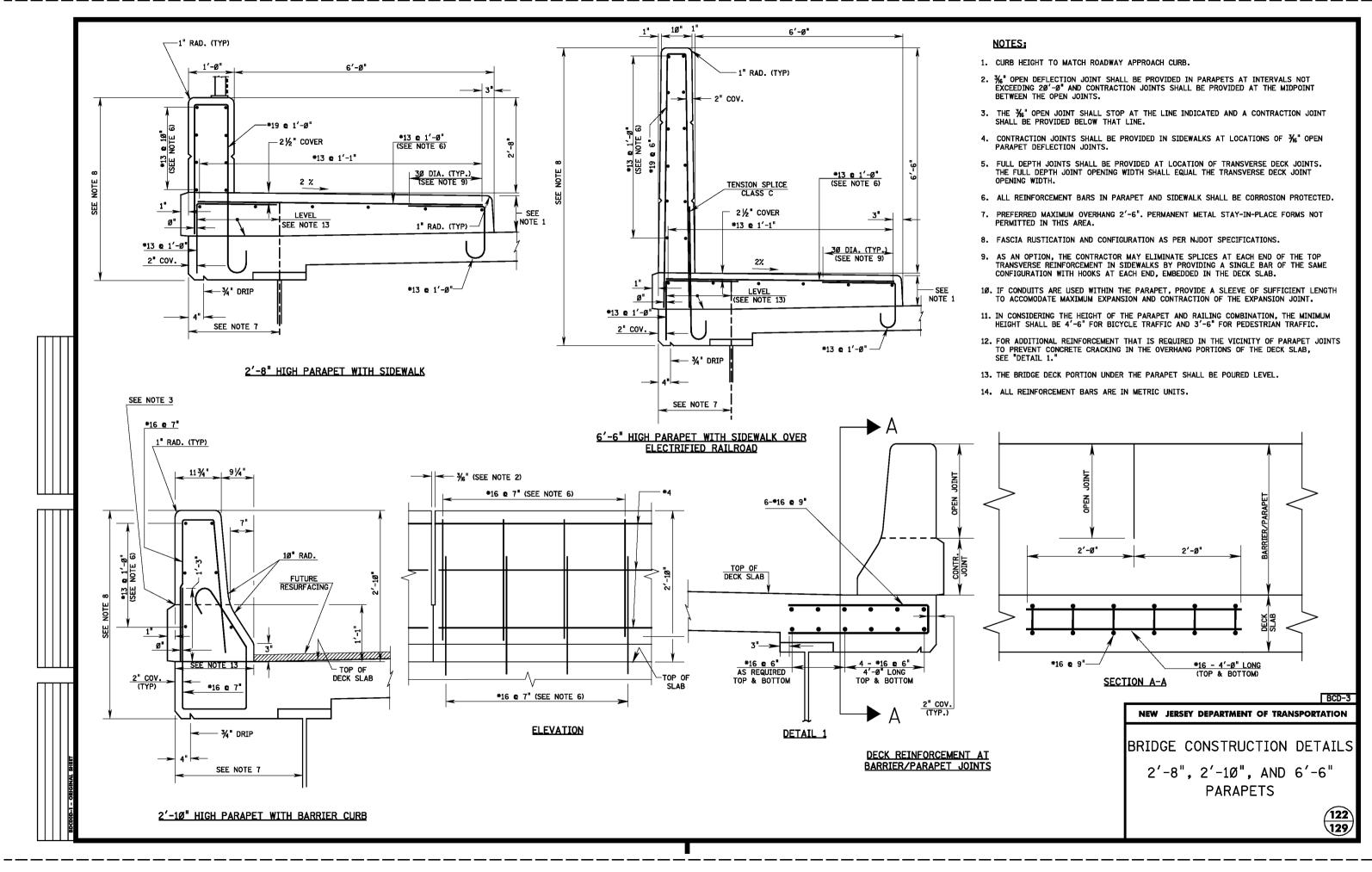
NOTES:

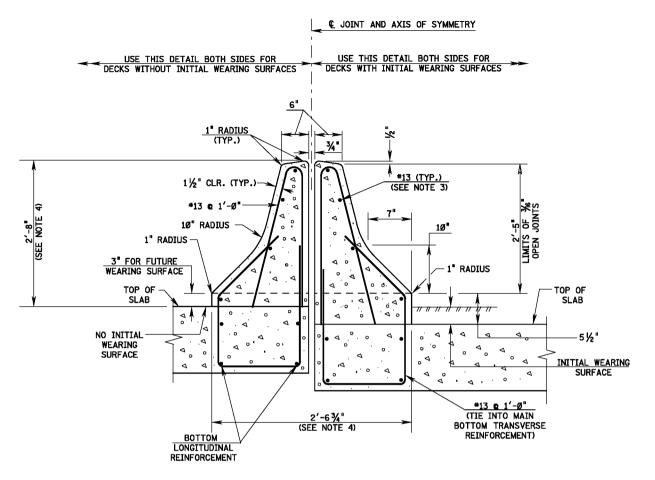
- THE DETAIL SHOWN HERE IS INTENDED AS A GENERAL GUIDE TO A TYPICAL GLANDULAR TYPE STRIP SEAL SYSTEM. VARIATIONS TO THE GLAND SHAPE, RAIL SHAPE, STUD ARRANGEMENT, AND SUPPORT DETAILS SHALL BE SUBMITTED ACCORDING TO THE NJDOT WORKING DRAWING SPECIFICATIONS.
- 2. $\frac{1}{2}$ " DIA. X 1 $\frac{1}{2}$ " STAINLESS STEEL FLAT HEAD MACHINE SCREWS WITH $\frac{3}{4}$ " DIA. CAST-IN-PLACE STAINLESS STEEL THREADED CONCRETE INSERTS. RECESS $\frac{1}{16}$ " BELOW PLATE SURFACE.
- 3. UPON COMPLETION, FILL JOINT OPENING WITH A LOW MODULUS SILICON RUBBER JOINT SEALER CONFORMING TO ASTM D 5893 WITH A MIN. ULTIMATE ELOGATION OF 1200 PERCENT. THE JOINT FILLER SHALL MATCH THE COLOR OF THE CONCRETE.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

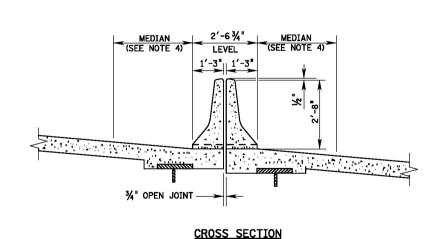
BRIDGE CONSTRUCTION DETAILS
STRIP SEAL DECK JOINTS

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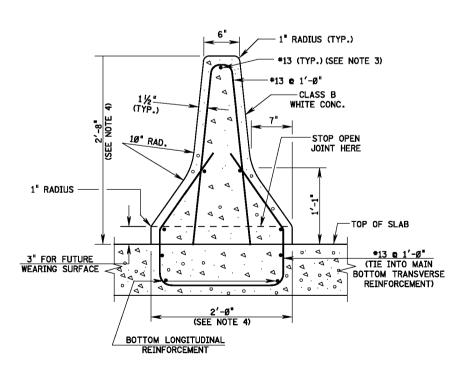




TYPICAL SECTION



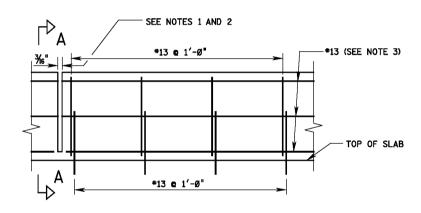
2'-8" HIGH SPLIT MEDIAN BARRIER ON BRIDGE



SECTION A-A
2'-8" HIGH MEDIAN BARRIER ON BRIDGE

NOTES:

- %" OPEN DEFLECTION JOINT SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 15'-Ø". THERE SHALL BE NO CONTRACTION JOINTS BETWEEN THE OPEN JOINTS AND NO CONTRACTION JOINTS LOCATED BELOW THE OPEN DEFLECTION JOINTS.
- 2. FULL DEPTH JOINTS SHALL BE PROVIDED AT LOCATION OF TRANSVERSE DECK JOINTS. THE FULL DEPTH JOINT OPENING WIDTH SHALL EQUAL THE TRANSVERSE DECK JOINT OPENING WIDTH.
- 3. ALL REINFORCEMENT BARS IN MEDIAN BARRIER ARE IN METRIC UNITS AND SHALL BE CORROSION PROTECTED.
- 4. WIDTH AND HEIGHT TO BE DETERMINED BY ROADWAY APPROACH BARRIER. REINFORCEMENT MUST BE ADJUSTED ACCORDINGLY.
- IF CONDUITS ARE USED WITHIN THE MEDIAN BARRIER, PROVIDE A SLEEVE OF SUFFICIENT LENGTH TO ACCOMODATE MAXIMUM EXPANSION OF THE EXPANSION JOINT. (REFER TO STANDARD ELECTRICAL DETAILS FOR CONDUIT EXPANSION FITTINGS.)

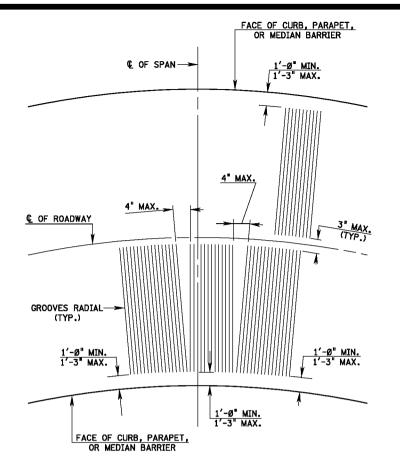


ELEVATION

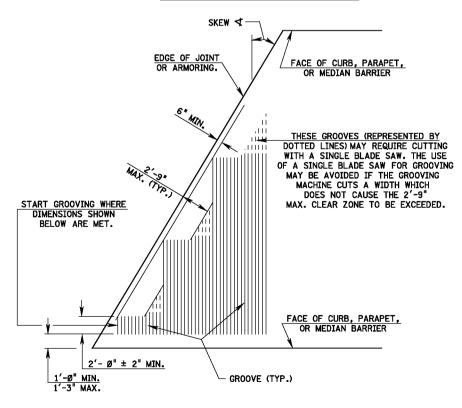
NEW JERSEY DEPARTMENT OF TRANSPORTATION

BRIDGE CONSTRUCTION DETAILS
BRIDGE MEDIAN BARRIER

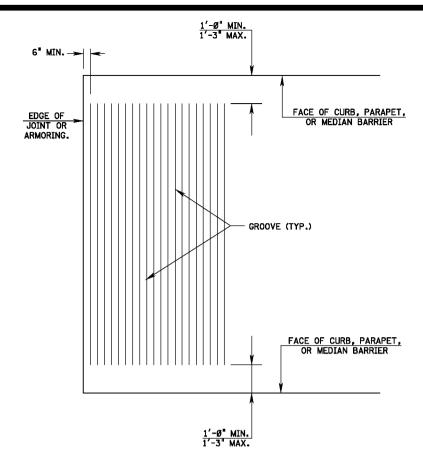




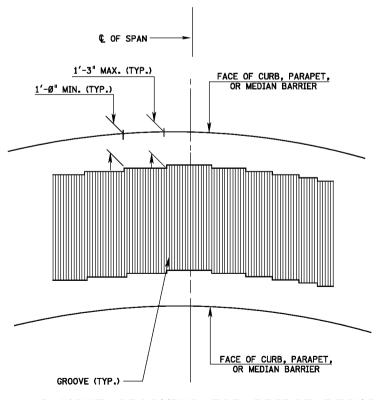
SAWCUT GROOVING FOR BRIDGE DECKS ON CURVED ALIGNMENT



SAWCUT GROOVING FOR SKEWED BRIDGE DECKS



SAWCUT GROOVING FOR BRIDGE DECKS



SAWCUT GROOVING FOR BRIDGE DECKS ON TIGHT CURVED ALIGNMENT

NOTES:

SAWCUT GROOVES SHALL BE RECTANGULAR IN CROSS SECTION WITH THE FOLLOWING DIMENSIONS:

WIDTH Ø.10" TO Ø.15" DEPTH Ø.25" TO Ø.375"

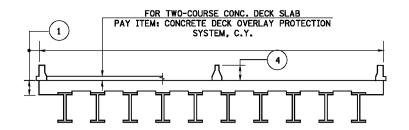
GROOVES SHALL BE SPACED AT 11/2" ± 1/16" CENTER TO CENTER.

BCD-5

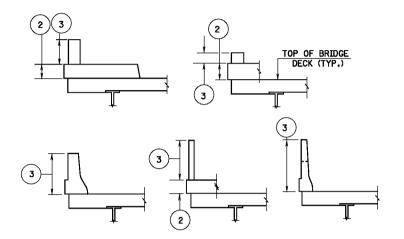
NEW JERSEY DEPARTMENT OF TRANSPORTATION

BRIDGE CONSTRUCTION DETAILS
SAWCUT GROOVING FOR
BRIDGE DECKS

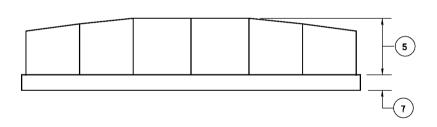
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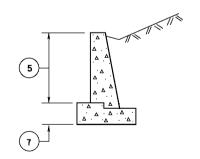
TYPICAL SECTION - BRIDGE DECK



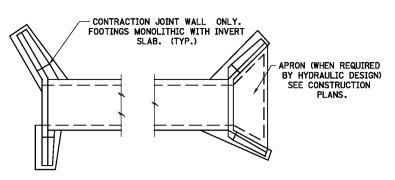
TYPICAL SECTION - BRIDGE PARAPETS



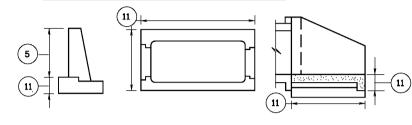
TYPICAL ELEVATION - RETAINING WALL



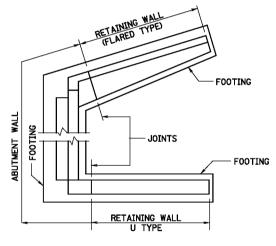
TYPICAL SECTION - RETAINING WALL



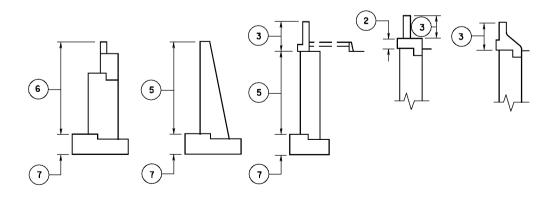
TYPICAL PLAN - CULVERT AND HEADWALLS



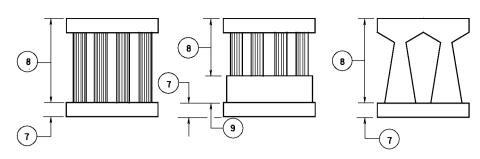
TYPICAL SECTION - CULVERT AND HEADWALLS



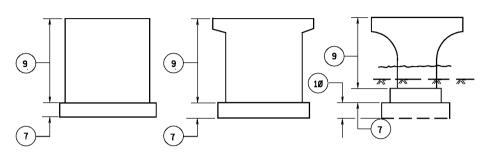
TYPICAL PLAN - ABUTMENTS



TYPICAL SECTION - VARIOUS WALLS AND PARAPETS



TYPICAL RIGID FRAME TYPE PIER - ELEVATIONS



TYPICAL SOLID SHAFT TYPE PIER - ELEVATIONS

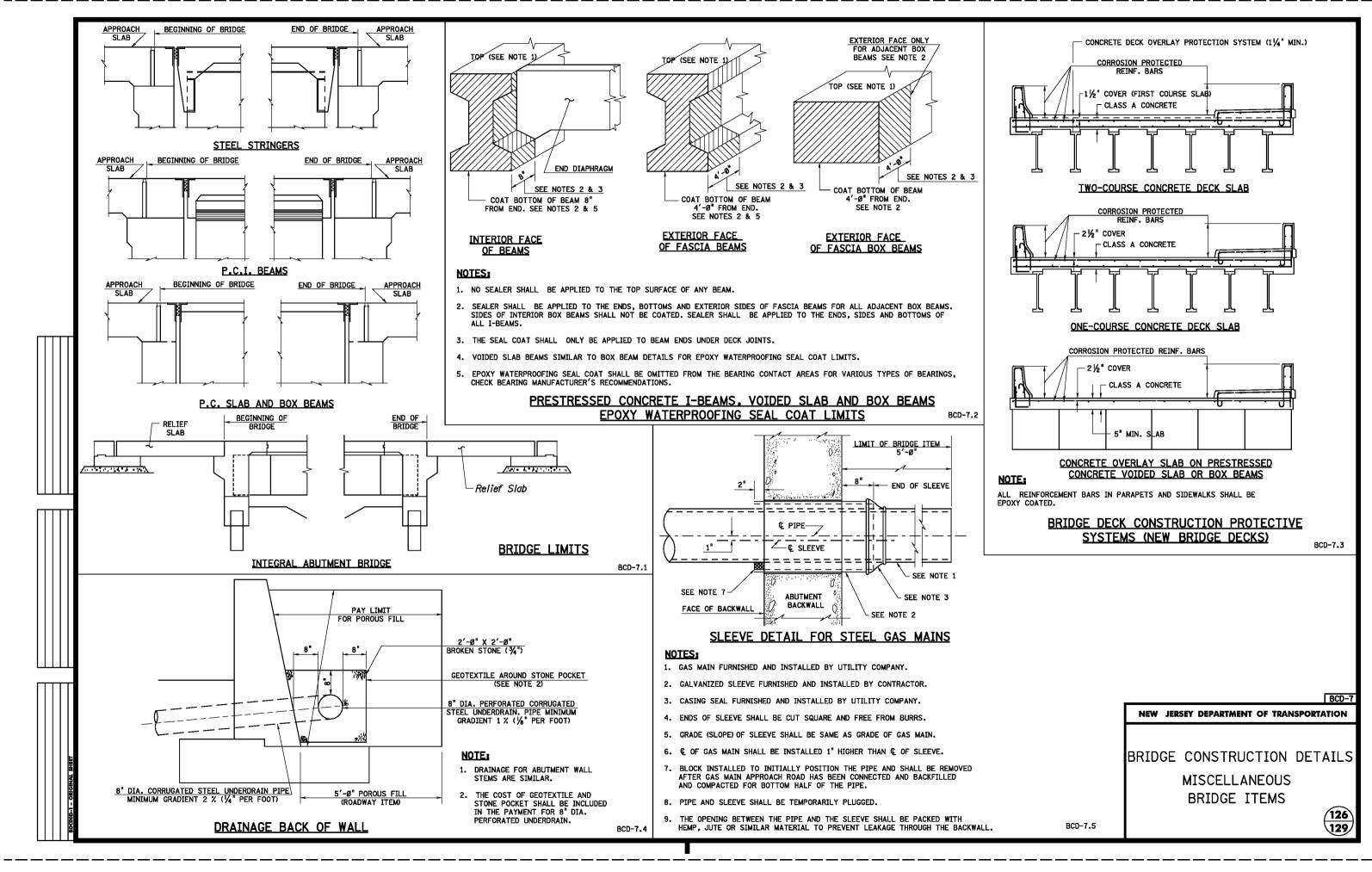
ПЕМ	CONCRETE CLA	SS PAY ITEM	UNIT
1	A	CONCRETE IN SUPERSTRUCTURE, DECK SLAB	C.Y.
2	A	CONCRETE IN SUPERSTRUCTURE, SIDEWALKS	C.Y.
3	A	CONCRETE IN SUPERSTRUCTURE, PARAPETS	L.F.
4	В	" X" WHITE CONCRETE BARRIER CURB, BRIDGE	L.F.
5	В	CONCRETE IN STRUCTURES, RETAINING WALLS	C.Y.
6	В	CONCRETE IN SUBSTRUCTURES, ABUTMENT WALLS	C.Y.
7	В	CONCRETE IN STRUCTURES, FOOTINGS	C.Y.
8	A	CONCRETE IN SUBSTRUCTURES, PIER COLUMNS AND CAPS	C.Y.
9	В	CONCRETE IN SUBSTRUCTURES, PIER SHAFTS	C.Y.
10	В	CONCRETE SEAL IN COFFERDAMS	C.Y.
11)	A	CONCRETE IN STRUCTURES, CULVERTS	C.Y.

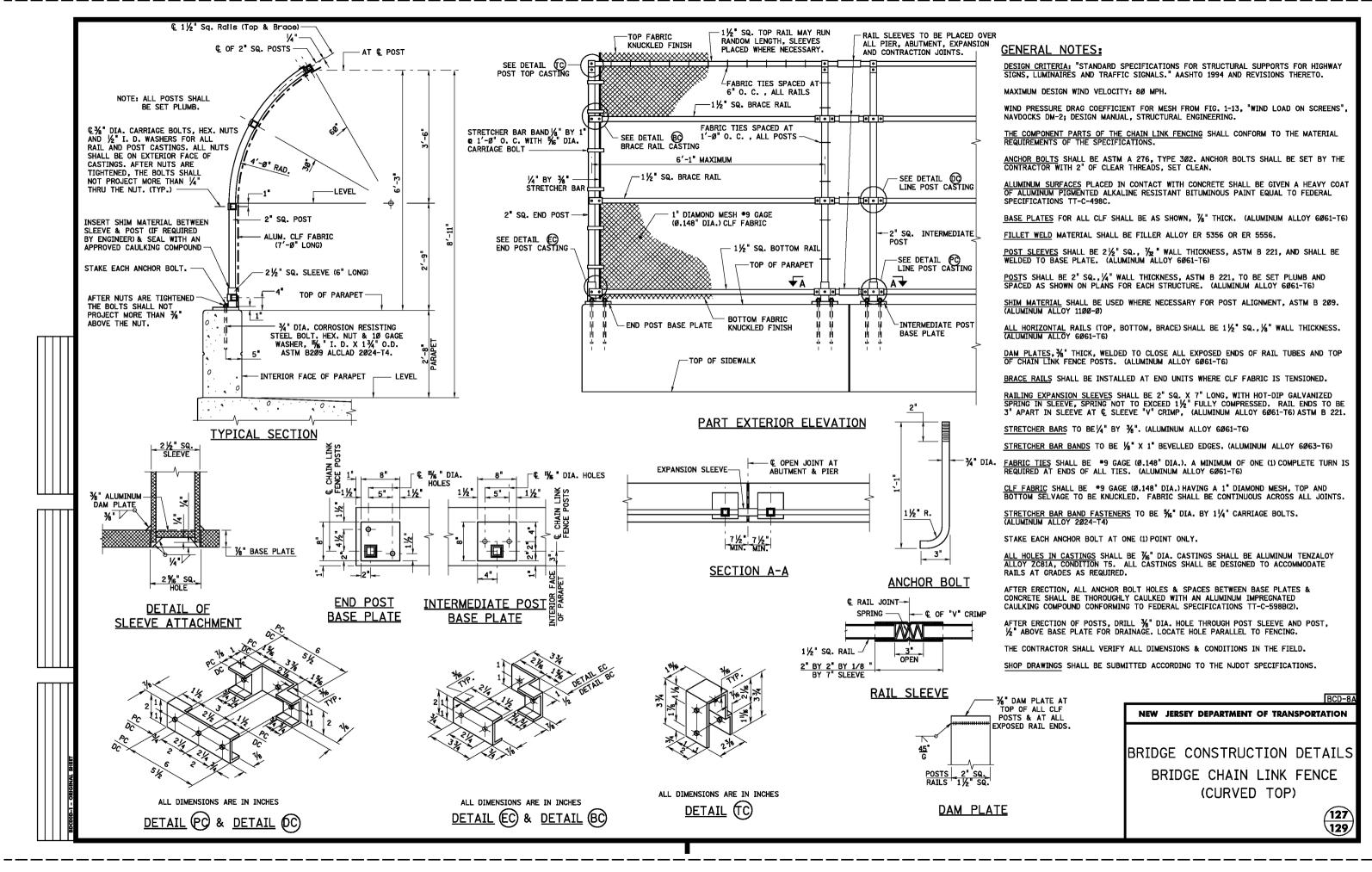
BCD-6

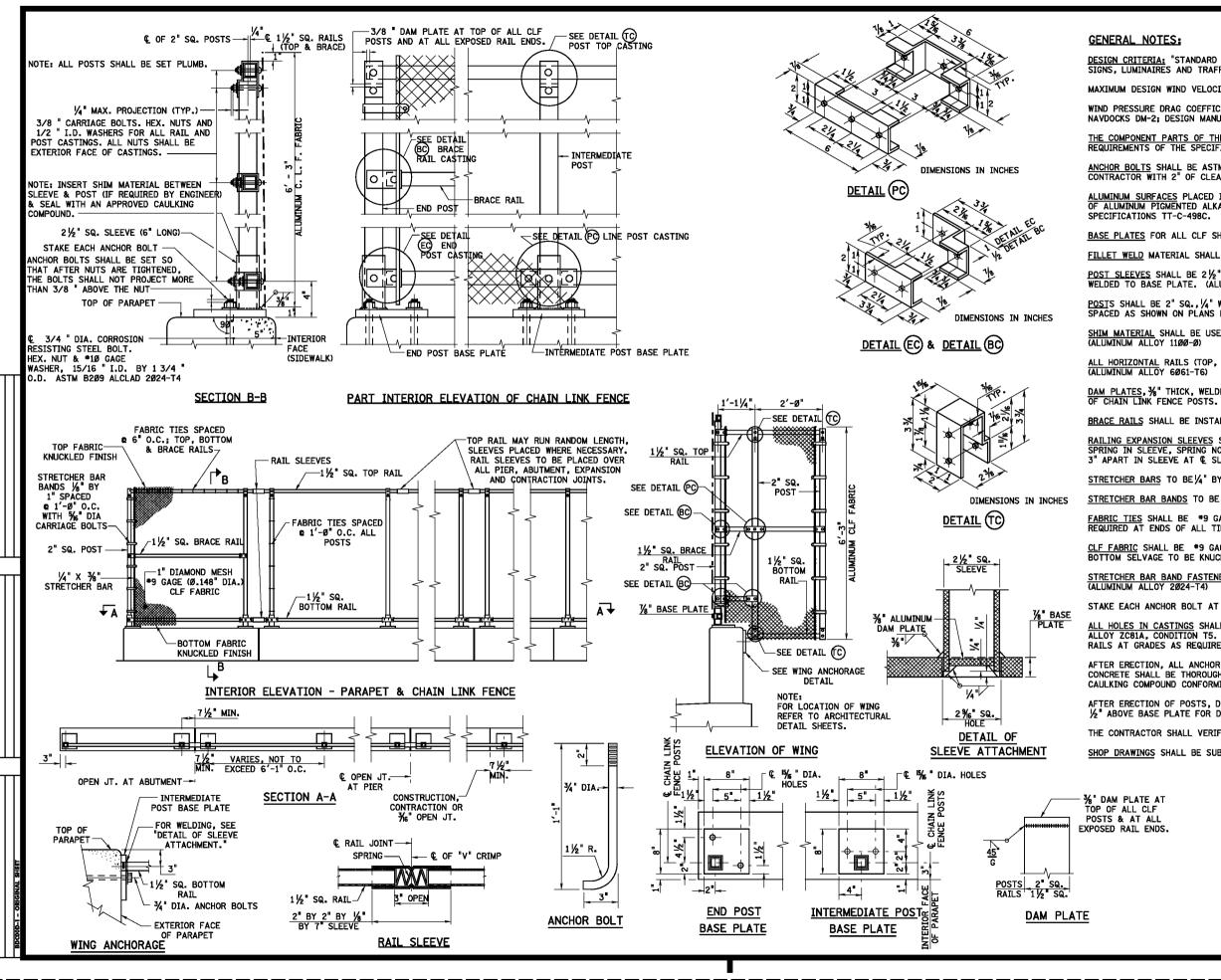
NEW JERSEY DEPARTMENT OF TRANSPORTATION

BRIDGE CONSTRUCTION DETAILS
CONCRETE CLASSES AND
PAY ITEMS









<u>DESIGN CRITERIA:</u> "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS." AASHTO 1994 AND REVISIONS THERETO.

MAXIMUM DESIGN WIND VELOCITY: 8Ø MPH.

WIND PRESSURE DRAG COEFFICIENT FOR MESH FROM FIG. 1-13, "WIND LOAD ON SCREENS", NAVDOCKS DM-2; DESIGN MANUAL, STRUCTURAL ENGINEERING.

ANCHOR BOLTS SHALL BE ASTM A 276, TYPE 302. ANCHOR BOLTS SHALL BE SET BY THE CONTRACTOR WITH 2" OF CLEAR THREADS, SET CLEAN.

<u>ALUMINUM SURFACES</u> PLACED IN CONTACT WITH CONCRETE SHALL BE GIVEN A HEAVY COAT OF ALUMINUM PIGMENTED ALKALINE RESISTANT BITUMINOUS PAINT EQUAL TO FEDERAL

BASE PLATES FOR ALL CLF SHALL BE AS SHOWN, 76" THICK. (ALUMINUM ALLOY 6061-T6)

FILLET WELD MATERIAL SHALL BE FILLER ALLOY ER 5356 OR ER 5556.

<u>POST SLEEVES</u> SHALL BE $2\frac{1}{2}$ " SQ., $\frac{1}{32}$ " WALL THICKNESS, ASTM B 221, AND SHALL BE WELDED TO BASE PLATE. (ALUMINUM ALLOY 6Ø61-T6)

POSTS SHALL BE 2" SQ., ¼" WALL THICKNESS, ASTM B 221, TO BE SET PLUMB AND SPACED AS SHOWN ON PLANS FOR EACH STRUCTURE. (ALUMINUM ALLOY 6Ø61-T6)

SHIM MATERIAL SHALL BE USED WHERE NECESSARY FOR POST ALIGNMENT, ASTM B 209. (ALUMINUM ALLOY 1100-0)

ALL HORIZONTAL RAILS (TOP, BOTTOM, BRACE) SHALL BE 1 $\frac{1}{2}$ " SQ., $\frac{1}{8}$ " WALL THICKNESS. (ALUMINUM ALLOY 6061-T6)

DAM PLATES, % THICK, WELDED TO CLOSE ALL EXPOSED ENDS OF RAIL TUBES AND TOP OF CHAIN LINK FENCE POSTS. (ALUMINUM ALLOY 6061-T6)

BRACE RAILS SHALL BE INSTALLED AT END UNITS WHERE CLF FABRIC IS TENSIONED.

RAILING EXPANSION SLEEVES SHALL BE 2" SQ. X 7" LONG, WITH HOT-DIP GALVANIZED SPRING IN SLEEVE, SPRING NOT TO EXCEED 1½" FULLY COMPRESSED. RAIL ENDS TO BE 3" APART IN SLEEVE AT € SLEEVE "V" CRIMP, (ALUMINUM ALLOY 6Ø61-T6) ASTM B 221.

STRETCHER BARS TO BE 4" BY %". (ALUMINUM ALLOY 6061-T6)

STRETCHER BAR BANDS TO BE 1/8" X 1" BEVELLED EDGES. (ALUMINUM ALLOY 6063-T6)

FABRIC TIES SHALL BE #9 GAGE (Ø.148" DIA.). A MINIMUM OF ONE (1) COMPLETE TURN IS REQUIRED AT ENDS OF ALL TIES. (ALUMINUM ALLOY 6061-T6)

F FABRIC SHALL BE #9 GAGE (Ø.148" DIA.)HAVING A 1" DIAMOND MESH. TOP AND BOTTOM SELVAGE TO BE KNUCKLED. FABRIC SHALL BE CONTINUOUS ACROSS ALL JOINTS.

STRETCHER BAR BAND FASTENERS TO BE $\frac{1}{4}$ DIA. BY $\frac{1}{4}$ CARRIAGE BOLTS. (ALUMINUM ALLOY $\frac{2024-T4}{4}$

STAKE EACH ANCHOR BOLT AT ONE (1) POINT ONLY.

ALL HOLES IN CASTINGS SHALL BE $\%_6$ " DIA. CASTINGS SHALL BE ALUMINUM TENZALOY ALLOY ZC81A, CONDITION T5. ALL CASTINGS SHALL BE DESIGNED TO ACCOMMODATE RAILS AT GRADES AS REQUIRED.

AFTER ERECTION, ALL ANCHOR BOLT HOLES & SPACES BETWEEN BASE PLATES & CONCRETE SHALL BE THOROUGHLY CAULKED WITH AN ALUMINUM IMPREGNATED CAULKING COMPOUND CONFORMING TO FEDERAL SPECIFICATIONS TT-C-598B(2).

AFTER ERECTION OF POSTS, DRILL $\frac{1}{2}$ " DIA. HOLE THROUGH POST SLEEVE AND POST, $\frac{1}{2}$ " ABOVE BASE PLATE FOR DRAINAGE. LOCATE HOLE PARALLEL TO FENCING.

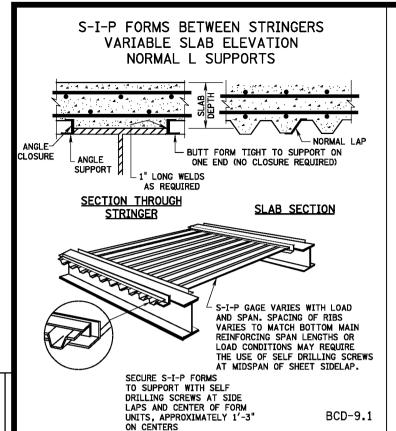
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS & CONDITIONS IN THE FIELD.

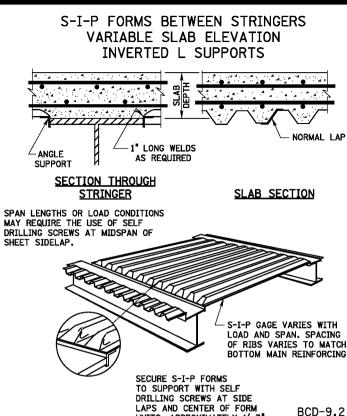
SHOP DRAWINGS SHALL BE SUBMITTED ACCORDING TO THE NJDOT SPECIFICATIONS.

NEW JERSEY DEPARTMENT OF TRANSPORTATION

BRIDGE CONSTRUCTION DETAILS BRIDGE CHAIN LINK FENCE (6' - 3" HIGH)

> 128 129





UNITS, APPROXIMATELY 1'-3'

BCD-9.5

S-I-P FORMS WITH ADJUSTABLE SUPPORTS NOT WELDED TO STRINGERS (TO BE USED IN THE TENSION ZONE OF CONTINUOUS SPAN BRIDGES) NORMAL LAF ANGLE SUPPORT CAN MOVE TO A HIGHER AND LOWER POSITION. SECTION THROUGH **SLAB SECTION STRINGER** 1¼"X 1¼" ANGLE FIELD CUT TO FIT. SPACED AND WELDED AS REQUIRED. DE LA CONTRACTION OF THE PARTY SUPPORTING ANGLE -ATTACH S-I-P SUPPORTING ANGLES TO 11/4"X11/4" ANGLE WITH 1" MINIMUM

HOLD DOWN CLIP IS

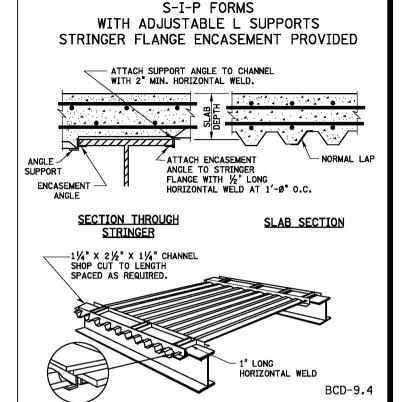
SECURED TO ANGLE

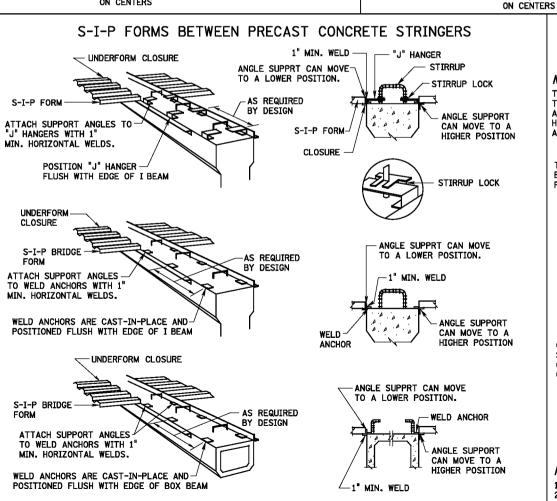
SUPPORT WITH 1/2

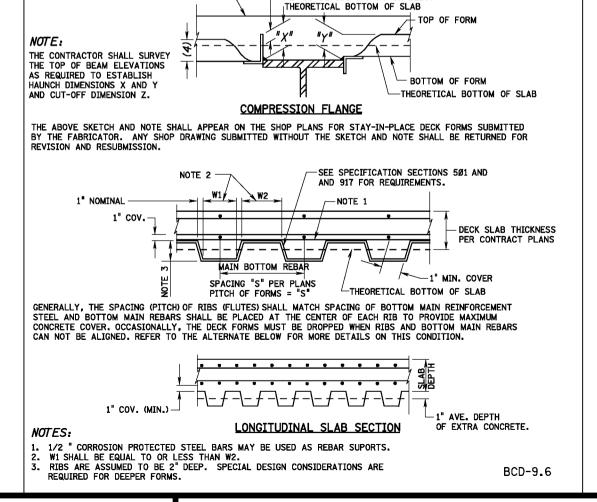
MIN. WELD.

"Z" TO BE CUT OFF AT OR BELOW

BCD-9.3







HOLD DOWN CLIP

1/4" WIDE.

TOP OF SLAB

GENERAL NOTE:

THE DETAILS SHOWN ARE GENERAL. SHOP DRAWINGS ACCORDING TO THE NUDOT SPECIFICATIONS SHALL BE SUBMITTED FOR ACTUAL DETAILS .

NEW JERSEY DEPARTMENT OF TRANSPORTATION

BRIDGE CONSTRUCTION DETAILS

STAY-IN-PLACE FORMS



BCD-9